

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/011007

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01M4/02 H01M4/62 H01M10/40 H01M4/02 H01M10/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>EP 1 191 131 A (SHOWA DENKO KABUSHIKI KAISHA) 27 March 2002 (2002-03-27)</p> <p>page 2, paragraph 5 - paragraph 8</p> <p>page 3, paragraph 23</p> <p>page 5, paragraph 28 - paragraph 35</p> <p>page 8, paragraph 72 - paragraph 74</p> <p>page 11, paragraph 110 - page 12,</p> <p>paragraph 112; example 8; tables 3,4</p> <p>-----</p> <p>-/--</p>	<p>1-10, 12,</p> <p>30-37, 39</p>

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *Z* document member of the same patent family

Date of the actual completion of the international search

2 May 2005

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10/05/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 194 099 B1 (GERNOV YORDAN M ET AL) 27 February 2001 (2001-02-27) column 2, line 60 - column 3, line 15 column 4, line 43 - column 5, line 8 column 6, line 12 - line 29 column 7, line 11 - line 37 column 8, line 24 - line 43 column 10, line 66 - line 20 column 10, line 31 - line 41 examples 1-9	1-6,8,9, 28,30-39
X	FRYSZ C A ET AL: "Carbon filaments and carbon black as a conductive additive to the manganese dioxide cathode of a lithium electrolytic cell" JOURNAL OF POWER SOURCES, ELSEVIER SEQUOIA S.A. LAUSANNE, CH, vol. 58, no. 1, 1996, pages 41-54, XP004044538 ISSN: 0378-7753 page 41, right-hand column, paragraph 2 - page 42, left-hand column, paragraph 1 page 42, left-hand column, paragraph 4 - right-hand column, paragraph 1 page 44, left-hand column, paragraph 2 - paragraph 4 page 45, right-hand column, paragraph 3 page 46; table 1	1,2,5,6, 8,21,24, 30-39
X	PATENT ABSTRACTS OF JAPAN vol. 016, no. 441 (E-1264), 14 September 1992 (1992-09-14) -& JP 04 155776 A (MATSUSHITA ELECTRIC IND CO LTD), 28 May 1992 (1992-05-28) cited in the application	1,2,5, 10,30-39
A	abstract	1-35
X	EP 0 858 119 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD) 12 August 1998 (1998-08-12) column 3, line 7 - line 32 column 4, line 38 - line 44 column 5, line 3 - line 9 column 9, line 30 - column 10, line 8; example 2	1,10, 30-39
A	EP 1 265 301 A (MITSUI MINING CO., LTD) 11 December 2002 (2002-12-11) page 9, paragraph 119	1-39
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INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/011007

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 437 943 A (FUJII ET AL) 1 August 1995 (1995-08-01) column 4, line 47 - line 62 column 6, line 44 - column 7, line 2 column 8, line 36 - line 62 column 11, line 51 - column 12, line 6	1-39
P,X	US 2004/043293 A1 (NAGATA MIKITO ET AL) 4 March 2004 (2004-03-04) page 2, paragraph 22 - paragraph 27 page 2, paragraph 29	1,5-8, 18,30-39
A	& EP 1 237 213 A (SANYO ELECTRIC CO., LTD) 4 September 2002 (2002-09-04) page 3, paragraph 10 - paragraph 12 page 4, paragraph 25 - page 5, paragraph 27 page 5, paragraph 32 page 6; table 1	1-39
A	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 11, 30 September 1999 (1999-09-30) & JP 11 149824 A (SHOWA DENKO KK), 2 June 1999 (1999-06-02) cited in the application abstract	1-39
A	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 11, 30 September 1999 (1999-09-30) & JP 11 147989 A (SHOWA DENKO KK), 2 June 1999 (1999-06-02) cited in the application abstract	1-39

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/JP2004/011007

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1191131	A	27-03-2002	AU 3328200 A EP 1191131 A1 JP 3461805 B2 US 6489026 B1 CN 1343269 A WO 0058536 A1 JP 2004003097 A TW 524904 B US 2003049443 A1	16-10-2000 27-03-2002 27-10-2003 03-12-2002 03-04-2002 05-10-2000 08-01-2004 21-03-2003 13-03-2003
US 6194099	B1	27-02-2001	AU 1811999 A WO 9933132 A1	12-07-1999 01-07-1999
JP 04155776	A	28-05-1992	JP 3033175 B2	17-04-2000
EP 0858119	A	12-08-1998	EP 0858119 A2 ID 19572 A JP 10261437 A	12-08-1998 23-07-1998 29-09-1998
EP 1265301	A	11-12-2002	JP 3635044 B2 JP 2002367611 A EP 1265301 A2 US 2002197534 A1	30-03-2005 20-12-2002 11-12-2002 26-12-2002
US 5437943	A	01-08-1995	JP 3534348 B2 JP 6163047 A JP 6132028 A JP 3190475 B2 JP 6313108 A JP 6318452 A	07-06-2004 10-06-1994 13-05-1994 23-07-2001 08-11-1994 15-11-1994
US 2004043293	A1	04-03-2004	NONE	
EP 1237213	A	04-09-2002	JP 2002251996 A CN 1372341 A EP 1237213 A2 TW 543227 B US 2002164528 A1	06-09-2002 02-10-2002 04-09-2002 21-07-2003 07-11-2002
JP 11149824	A	02-06-1999	US 6190805 B1 JP 3611716 B2 JP 11147989 A JP 3614658 B2 JP 11149823 A JP 2004331982 A JP 2005056857 A US 2001011119 A1 US 2002161146 A1	20-02-2001 19-01-2005 02-06-1999 26-01-2005 02-06-1999 25-11-2004 03-03-2005 02-08-2001 31-10-2002
JP 11147989	A	02-06-1999	JP 3611716 B2 JP 2004331982 A US 2001011119 A1 US 2002161146 A1 JP 3614658 B2 JP 11149823 A JP 11149824 A JP 2005056857 A US 6190805 B1	19-01-2005 25-11-2004 02-08-2001 31-10-2002 26-01-2005 02-06-1999 02-06-1999 03-03-2005 20-02-2001